Space Nutrition

Volume 2 | Go For Launch | Issue #5

STS-107 Facts

The final days before launch are always filled with excitement and anticipation. The crew arrives in Florida just days before the launch, and we complete the final preflight data collections.

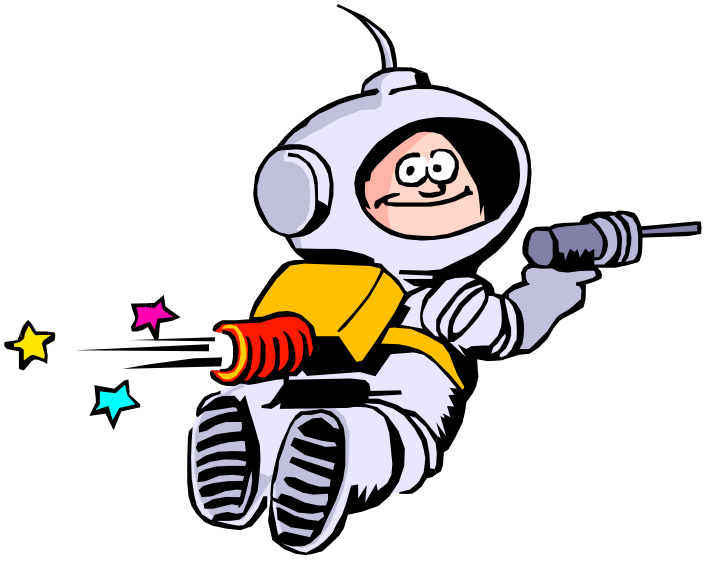
During the final week - the crews will also begin to "sleep shift". For STS-107, the crew will split into "Red" and "Blue" teams, so that science work on orbit can be completed 24-hours a day. The team that will work through the "night" gradually adjusts their bedtime so that they are waking up in the evening, and going to bed in the morning.

Curiosity Corner

Jennifer from TX asks -
Do the astronauts sleep while they are traveling in space?

Just like on Earth, workers in space go to sleep and wake up the next day, prepared for work. Astronauts are usually scheduled for eight hours of sleep at the end of each mission day. Because there is no up or down and there is no gravity, astronauts can sleep in any orientation. Space shuttle and space station crews usually sleep in sleeping bags that are attached to a wall.

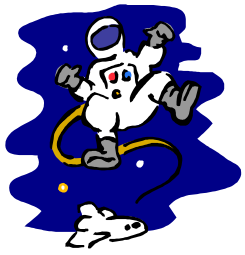
Once the Shuttle launches - team members from the Nutritional Biochemistry Laboratory will work "on console". This involves working in the Telescience Support Center - a big room just down the hall from Mission Control! We listen in on headsets to the crew and flight controllers, and talk among the other experiments - to keep track of what happens during the mission, and make any necessary recommendations for changes if any problems arise. If the crew calls down with a question - we have to be ready to answer it almost immediately. This is the same as we have practiced in simulations - but this time - it is the real thing! It is a very exciting time - but also a bit stressful. A little like taking a test in school!



For the Calcium Kinetics experiment - our busiest days during the mission will be on Flight Day 3 (FD3) and on FD12. On those days the crews will take our calcium tracers. Other days we will collect blood, urine, and saliva samples, and the crews will record food intake.

Did you know?

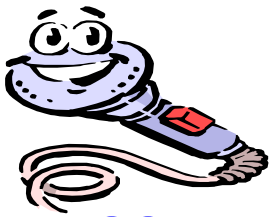
- Weather is very important for launch and landing because at the high speed the Shuttle is traveling, rain might damage the exterior of the vehicle.
- For a "go" to be given for launch - the weather has to be clear in Florida and around the world! In case of problems - the weather must be clear at landing sites in Florida and California, as well as at trans-Atlantic sites in Spain.
- During the Shuttle's lift off, its ascent (journey from the Earth's surface) to final orbit takes about 8 minutes. The crew members then unstrap from their seats and get to work setting up the orbiter for the next two weeks as a laboratory, living space, kitchen, and bedroom.
- Sleep shifting is easy to do once in orbit - because the sun comes up (and sets again) every 90 minutes!
- The Expedition 6 crew on the International Space Station continues to work away. There are three crewmembers - two American, and one Russian. Their mission is planned to last 4 months.



Word of the Month

MET

Can you guess what this acronym means? Look for the meaning of the "Word of the Month" in the next issue of Space Nutrition



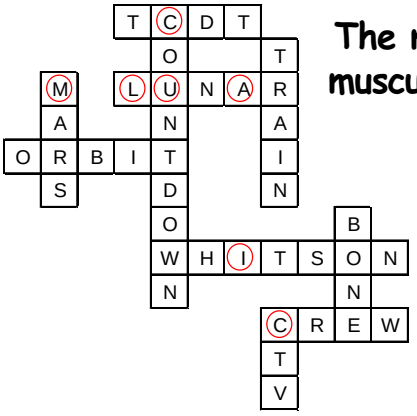
FUN CORNER

Find these space words:

Rocket, Booster, Launch, Orbit, Shuttle, Fuel, Ascent, Lunar, Pilot, Mission

R	L	U	N	A	R	N	S
N	O	I	S	S	I	M	L
N	O	I	S	C	T	M	A
H	P	R	E	E	A	T	U
T	I	S	K	N	F	I	N
I	L	C	K	T	U	B	C
B	O	O	S	T	E	R	H
R	T	T	T	U	L	O	N
R	E	L	T	T	U	H	S

Solution to Last Month's Crossword

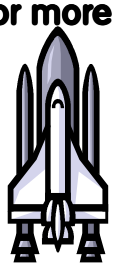


The major mineral of the musculoskeletal system is

CALCIUM

Check out these cool NASA links for more fun space science facts:

http://virtualastronaut.jsc.nasa.gov
http://lsda.jsc.nasa.gov
http://www.nasa.gov/kids.html
http://www.spaceflight.nasa.gov
http://spaceresearch.nasa.gov



Check out the Nutritional Biochemistry Laboratory's website for more information about nutrition and space.

http://www.jsc.nasa.gov/sa/sd/facility/nutrition.htm